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NEW SPIDERS FROM TEXAS

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The types of the new species of spiders described below, all of which were collected in southern Texas by L. Irby Davis, are deposited in the collection of The American Museum of Natural History. Of particular interest is the addition of two more species of the genus *Zorocrates* and a second species of *Chorizomma* to the Nearctic fauna.

Micryphantidae

Erigone personata, new species

Figures 1 and 2

MALE.—Total length, 1.90 mm. Carapace, 0.80 mm. long, 0.60 mm. wide. Carapace dark reddish brown, the pars thoracica with numerous radiating dark streaks, the midline with a triangular dark maculation from which dark streaks go to the eyes and to the sides of the head. Eyes very narrowly ringed with black and enclosing a dusky field. Chelicerae reddish brown. Sternum black, the endites dull reddish brown, the coxae yellowish brown, with a black terminal ring and a narrow ventral black stripe. Legs pale yellow, clothed with rows of black hairs. Abdomen gray to black, clothed with short, inconspicuous hairs, with a few paler markings above.

Carapace longer than broad, the pars thoracica moderately convex, oval in outline, the pars cephalica strongly elevated, highest at the ocular area, nearly round as viewed from above, the clypeus protruding, rounded on the anterior margin, equal in height to the length of the median ocular quadrangle. Eyes of the first row slightly procurved, the medians separated by two-thirds the diameter, nearer the larger lateral eyes. Second eye row slightly procurved, the medians separated by scarcely the short diameter, as far from the subequal laterals. Median ocular quadrangle as long as broad, as wide in front as behind, the anterior medians slightly smaller. Lateral eyes of each side subcontiguous and subequal. Chelicerae armed on the outer side of the anterior face with five strong teeth and with two teeth near the inner margin. Upper margin of the furrow of the chelicera with four large teeth, the lower with three small ones. Sternum as long as broad, the posterior coxae separated by their width. Legs without spines. First femur with three strong ventral teeth on the retrolateral side and with two rows of setigerous bristles. Second femur with two ventral rows of setigerous bristles, of bases of two of them enlarged to form tubercles. Tibia and patella of the first leg, 0.70 mm. long. Femur of the palpus four and one-half times as long as broad, slightly curved, with a row of seven setigerous bristles. Patella half as long as the femur, with a short ventral spur at the distal end as figured. Tibia with apophyses a little longer than the patella, greatly enlarged distally. Details of the tarsus and bulb as figured.

TYPE LOCALITY.—Male holotype from Llano, Llano County, Texas, December 24, 1935 (L. I. Davis).

This species is related to *Erigone canthognatha* Chamberlin and Ivie in the general details of the palpus and in the spinal formula of the legs. It is distinct in the smaller size and in the proportionately shorter joints of the palpus, the patella being equal to only half the length of the tibia and tarsus, whereas in *canthognatha* it is subequal in length to these two joints. It is also related to *Ergone brevidentata* Emerton but has the patellar spur longer and differs in the details of the bulb.

Eperigone credula, new species

Figures 3 and 4

MALE.—Total length, 2.00 mm. Carapace, 1.05 mm. long, 0.74 mm. wide.

Carapace dull yellow to orange, the sides evenly infuscated, the eyes narrowly ringed in black and enclosing a black field, the midline with a row of weak erect hairs, the carapace otherwise clothed with a few scattered inconspicuous black hairs. Sternum dusky, the mouth parts and legs dull yellow, clothed with black hairs. Abdomen nearly black, with a dorsal gray area above and marked with small scattered pale spots.

Carapace longer than broad, suboval, the pars cephalica somewhat narrower, the width of the head at the second eye row five-sevenths of the greatest width. Carapace as viewed from the side rather high, strongly convex, highest at the ocular area, evenly declining caudally to the margin, the cervical groove a longitudinal furrow. Clypeus weakly concave, as high as the length of the median ocular quadrangle. Eyes of the first row slightly narrower than the second, very weakly procurved, the medians separated by the radius, as far from the somewhat larger lateral eyes. Eyes of the second row very weakly procurved, the medians separated by their radius, slightly nearer the subequal laterals. Median ocular quadrangle slightly broader than long (20/19), narrower in front (20/16), the anterior medians somewhat smaller. Lateral eyes subequal and contiguous. Chelicera with a strong tooth on the anterior face near the upper margin, the sides with a row of very weak tubercles from which small setae originate, the sides with a weak series of striae near the distal end. Sternum as broad as long, the posterior coxae separated by their width. Legs without spines, the first tibia and patella. 0.95 mm. long. Femur of palpus four times as long as broad, curved, armed in the basal half below with four or five setigerous bristles. Patella longer than broad (14/10). Tibia longer than the patella (24/14). greatly enlarged distally, the dorsolateral angle produced into a broad bifid process, leaving a conspicuous concavity on the retrolateral side. Details of palpus almost identical with *Eperigone antraea* Crosby and also approximating that of *Eperigone taibo* Chamberlin and Ivie.

TYPE LOCALITY.—Llano, Llano County, Texas, December 24, 1935 (L. I. Davis).

This species is closely related to *Eperigone antraea* Crosby but is distinct in the more prominent dorsal teeth on the tibial apophysis and in

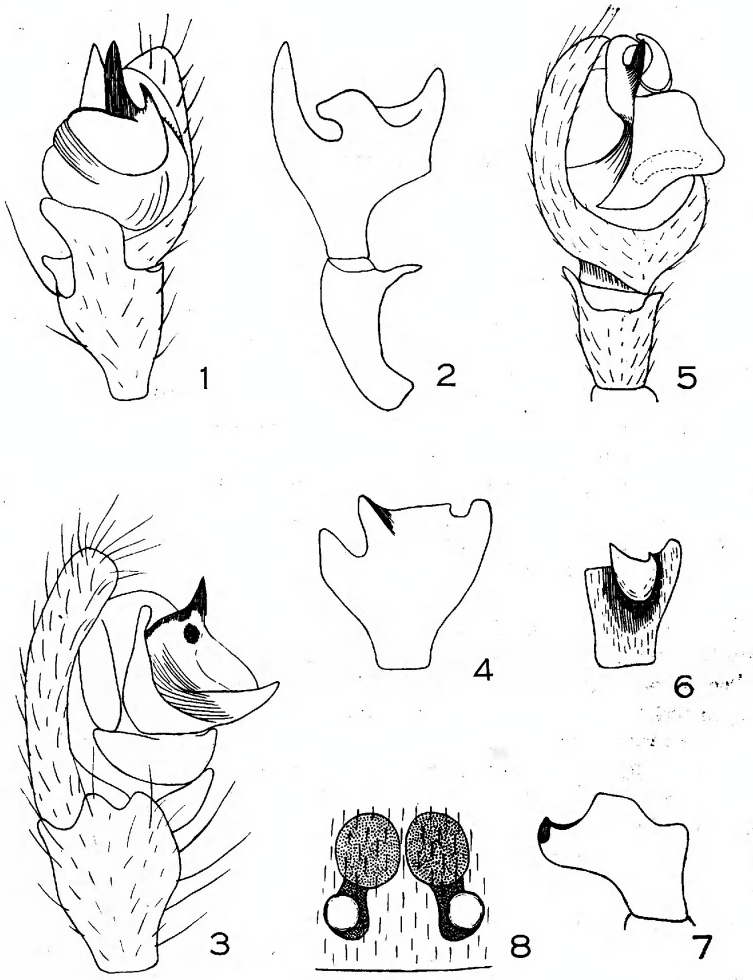

Fig. 1. *Erigone personata*, new species, right palpus, ventral view.
Fig. 2. Idem, patella and tibia of right palpus, retrolateral view.
Fig. 3. *Eperigone credula*, new species, right palpus, subretrolateral view.
Fig. 4. Idem, tibia of right palpus, dorsal view.
Fig. 5. *Tapinocyba conspecta*, new species, right palpus, subventral view.
Fig. 6. Idem, tibia of right palpus, dorsal view.
Fig. 7. Idem, tibia of right palpus, retrolateral view.
Fig. 8. *Chorizomma minorata*, new species, epigynum.

having the posterior eyes much more closely spaced, being separated by the radius rather than by nearly the diameter. It is also closely related to *Eperigone taibo* Chamberlin and Ivie but differs in the eye arrangement and in the details of the palpus.

Tapinocyba conspecta, new species

Figures 5, 6 and 7

MALE.—Total length, 2.10 mm. Carapace, 1.00 mm. long, 0.75 mm. wide.

Carapace bright yellow to orange, paler behind, the eyes narrowly ringed with black and enclosing a black field, armed with a few weak bristles on the midline and on the clypeus. Sternum pale yellow, with a faint dusky marginal band, set sparsely with erect black hairs. Mouth parts and coxae pale yellow. Legs very pale yellow throughout, clothed with rows of black hairs. Abdomen gray to white, the spinnerets with a narrow incomplete black ring, sparsely clothed with black hairs.

Carapace longer than broad, the head broad, the width at the second eye row two-thirds the greatest width. Pars thoracica oval, moderately convex, the pars cephalica much higher, the highest point being just behind the eyes. Clypeus gently rounded, equal in height to twice the length of the median quadrangle. Eyes of the first row procurved, the medians separated by one-third their diameter, as far from the much larger lateral eyes. Second row of eyes very weakly procurved, essentially straight, the medians separated by three-fourths their diameter, a little nearer the subequal laterals. Median ocular quadrangle broader than long (16/13), narrower in front (16/12), the anterior medians much smaller. Lateral eyes of each side subequal and subcontiguous. Cephalic pit beginning between the posterior lateral eyes and continuing behind as a long groove. Chelicera with a strong distal tooth near the inner margin of the outer face and with a row of weak setigerous bristles on each side. Upper and lower margins of the furrow of the chelicera with five subequal denticles. Sternum as broad as long. Labium longer than broad (16/11). Endites moderately convergent, the distal outer margin with a weak setigerous tubercle. Tibia and patella of the first leg. 1.05 mm. long. Details of the palpus as figured.

TYPE LOCALITY.—Male holotype from Llano, Llano County, Texas, December 24, 1935 (L. I. Davis). Two male paratypes from Edinburg, Texas, July, 1934 (S. Mulaik).

Floricomus mulaiki, new species

Figures, 28, 29, 30 and 31

MALE.—Total length, 1.34 mm. Carapace, 0.63 mm. long, 0.55 mm. wide.

Carapace dusky brown, with paler radiating lines, the eyes narrowly ringed in black and enclosing a black field. Sternum and labium dusky brown, paler in the center. Endites and coxae dusky yellow, the legs yellowish brown. Dorsum of the abdomen covered with the usual large orange scutum which is set with a uniform covering of large appressed hairs. Venter mainly dusky, with lighter streaks and markings.

Carapace longer than broad, the pars thoracica oval in outline as seen from above, convex, rather low, the cervical groove indistinct. Pars cephalica greatly

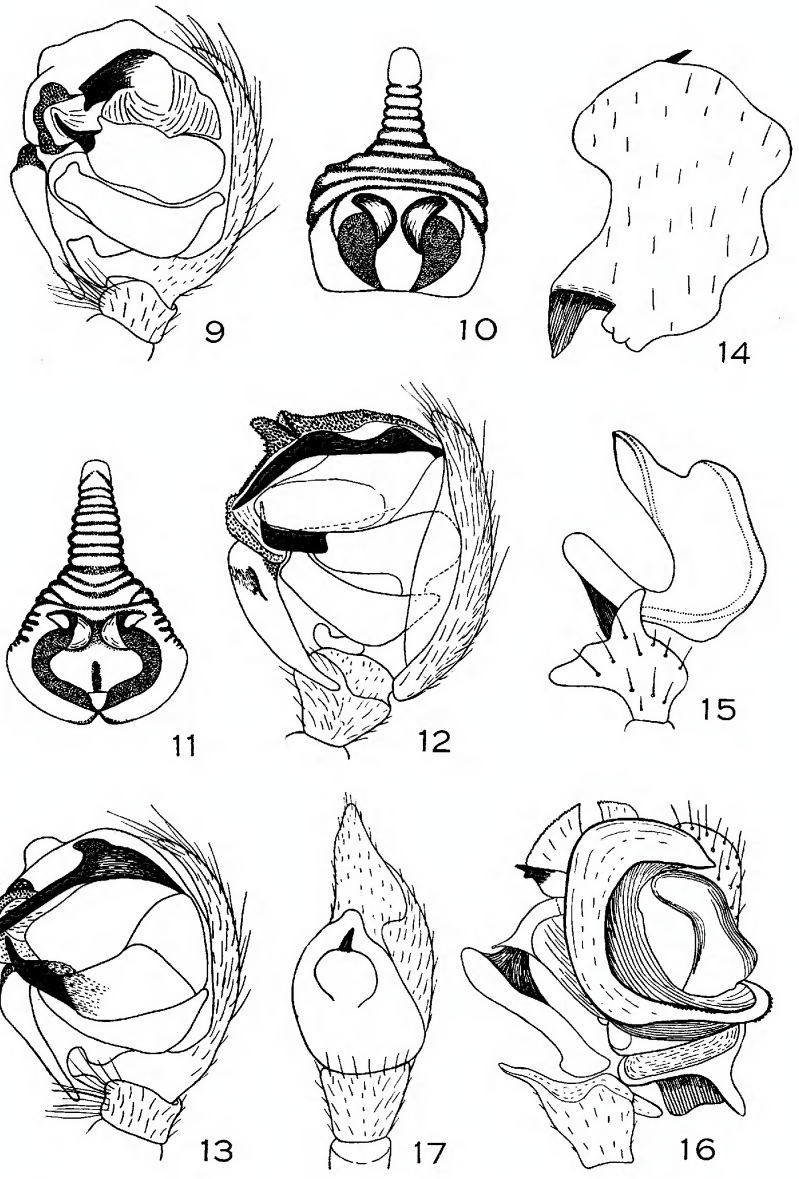

Fig. 9. *Eustala brevispina*, new species, right palpus, subventral view.
Fig. 10. Idem, epigynum.
Fig. 11. *Eustala rosae* Chamberlin and Ivie, epigynum.
Fig. 12. Idem, right palpus, subventral view.
Fig. 13. *Eustala cameronensis*, new species, right palpus, subventral view.
Fig. 14. *Microneta llanoensis*, new species, cymbium of right palpus, dorsal view.
Fig. 15. Idem, tibia and bulbal apophysis of right palpus, dorsal view.
Fig. 16. Idem, right palpus, ventral view.
Fig. 17. *Theridion credulum*, new species, right palpus, subventral view.

elevated, the eye group on a conspicuous tubercle, as viewed from the side sharply ascending behind to the pars thoracica, the clypeus very high, with a prominent rounded lobe just below the eye tubercle which is set with short erect black hairs. Eyes all situated in a compact group near the top of the cephalic tubercle. Eyes of the first row placed on the anterior face of the tubercle, in a straight line, the medians slightly separated, subcontiguous with the subequal laterals. Posterior row of eyes in a straight line, the medians much higher than the laterals, separated by a radius, a little farther from the slightly smaller lateral eyes. Median ocular quadrangle broader than long (11/8), as wide in front as behind. Clypeus twice as high as the length of the median eye quadrangle. Sternum as broad as long, squared off in front, gently rounded on the sides, truncated between the posterior coxae which are separated by their width. Labium broader than long. Legs set with rows of fine black hairs, the first patella and tibia, 0.55 mm. long. Palpus as figured. Abdomen a broad oval as seen from above.

FEMALE.—Total length, 1.35 mm.

Color and structure essentially as in the male except for the pars cephalica which is normal in shape. Eyes of the first row straight, the medians slightly separated, subcontiguous with the subequal laterals. Second row of eyes very weakly procurved, essentially straight, the medians separated by a little less than the radius, a radius from the subequal laterals. Median ocular quadrangle slightly longer than broad, as wide in front, the eyes subequal. Epigynum as figured.

TYPE LOCALITY.—Male holotype and paratype, female allotype and paratypes from Cameron County, Texas, May 1 and 2, 1936 (L. I. Davis).

This interesting species has a strongly elevated cephalic tubercle as in *Floricomus crosbyi* Ivie and Barrows but is distinct in having all the eyes in a compact group at the summit of the tubercle.

Agelenidae

Chorizomma minorata, new species

Figure 8

FEMALE.—Total length, 1.60 mm. Carapace, 0.70 mm. long, 0.47 mm. wide.

Whole spider white to very pale yellow, without dark markings except for the very narrow black rings around the eyes. Clothing as usual in the genus or as in *Cicurina*, a thin covering of fine black hairs.

Carapace longer than broad, rather weakly convex, slightly rounded on the sides, truncated in front, the width at the second eye row about two-thirds the greatest width of the carapace (32/47). Sutures obsolete. Carapace as viewed from the side nearly equal in height for five-sevenths of the length and from that point evenly sloping to the caudal margin. Clypeus equal in height to one-half the diameter of an anterior lateral eye. Eyes six, the anterior laterals (first row) separated by their diameter. Posterior row of eyes straight, the medians separated by their long diameter, subcontiguous with the posterior laterals and with the anterior laterals. All eyes subequal. Sternum longer than broad (45/37), suboval, the posterior coxae separated by their width. Labium twice as broad as long (15/7), scarcely half as high as the endites. Chelicera armed with five small subequal teeth on the lower

margin of the furrow. Legs rather robust, the first tibia and metatarsus with two pairs of ventral spines, no distals, and with a single prolateral. First leg: femur 0.46 mm., patella, 0.22 mm., tibia, 0.33 mm., metatarsus, 0.30 mm., and tarsus, 0.24 mm. long. Epigynum as figured.

TYPE LOCALITY.—Female holotype from San Antonio, Texas, December, 1934 (L. I. Davis).

This species is readily separated from *Chorizomma texana* Gertsch by its much smaller size, in having the eyes subequal, and in the greater separation of the posterior median eyes.

Theridiidae

Dipoena jocosa, new species

Figure 20

FEMALE.—Total length, 2.25 mm. Carapace, 0.80 mm. long, 0.80 mm. wide.

Carapace dark reddish brown, clothed sparsely with short pale hairs. Sternum dark reddish brown, the mouth parts and coxae paler, the clothing of the underside inconspicuous hairs. Integument of the legs pale yellow, but the bright color masked more or less completely by brown, the basal half of the first femur pale, the distal half of the femur and the remaining joints of the first leg mainly brown. Other legs as the first but the dorsum of the joints with an inconspicuous pale band. Abdomen mainly gray, the dorsum with a broad white transverse stripe between the shoulder humps, the venter with a broad triangular dark band which encloses a white maculation.

Carapace as broad as long, moderately high, convex, the highest point at the second coxae, the cervical groove obsolete. First row of eyes straight, the medians separated by two-thirds their diameter, subcontiguous with the slightly smaller lateral eyes. Eyes of the second row straight, the medians separated by nearly three-fourths their diameter, as far from the subequal laterals. Median ocular quadrangle broader than long (25/22), wider in front in the same ratio, the eyes subequal. Clypeus sloping, a little higher than the diameter of an anterior median eye. Sternum longer than broad (50/43), truncated in front, very weakly rounded on the sides truncated behind where the posterior coxae are separated by their length. Labium much broader than long, half as high as the endites. Legs without spines. First leg: femur, 0.86 mm., patella, 0.36 mm., tibia, 0.53 mm., metatarsus, 0.50 mm., and tarsus, 0.45 mm. long. Abdomen broader than long (2.60 mm./1.70 mm.), very high and overlapping the carapace, armed with a prominent shoulder hump on each side. Vulva a simple elliptical aperture.

MALE.—Total length, 1.10 mm. Carapace, 0.54 mm. long, 0.50 mm. wide.

Carapace dark reddish brown as in the female. Legs paler than in the female distinctly annulate. Abdomen mainly white in the caudal portion, the venter with a black stripe which encloses a white marking.

Structure of the carapace essentially as in the female, a little higher and more convex, the sutures obsolete, the front gently rounded. Clypeus equal in height to one and one-third times the diameter of an anterior median eye. Eyes of the first row straight, the medians separated by about two-thirds their diameter, subcontiguous with the subequal laterals. Second eye row weakly recurved, essentially straight,

the medians separated by their radius, two-thirds their diameter from the subequal laterals. Median ocular quadrangle broader than long (18/15), narrowed behind in the same ratio, the eyes subequal. Lateral eyes subcontiguous and subequal. Legs without spines, the first patella and tibia, 0.50 mm. long. Palpus as figured. Abdomen strongly humped as in the female.

TYPE LOCALITY.—Male holotype, female allotype and male and female paratypes from Austin, Texas, August, 1935 (L. I. Davis). Edinburg, Texas, October 15, 1935, female paratype (Schulle). Female paratype from thirty miles west of Edinburg, Texas, April 24, 1934 (S. Mulaik). Female paratype from Llano, Texas, August, 1935 (L. I. Davis).

CALODIPOENA, NEW GENUS

A genus of the subfamily Latrodectinae.

Tarsal claws pectinate. Carapace about as broad as long, convex, the pars cephalica elevated in the male. First row of eyes procurved, the medians widely separated, contiguous with the subequal laterals. Second eye row very weakly procurved, the eyes equidistantly spaced, the medians larger. Median ocular quadrangle broader in front in the male, less so in the female, the anterior medians smaller. Sternum as broad as long, truncated behind, the posterior coxae separated by the length of the fourth metatarsus. Abdomen globose.

GENOTYPE.—*Calodipoena incredula*, new species.

This genus is distinct from *Dipoena* in the relations of the eyes, in having the eyes of the first row subequal, and in having the sternum broadly truncated caudally. It differs from *Dipoenoides* in having the eyes of the first row subequal, rather than much smaller than the laterals.

Calodipoena incredula, new species

Figures 32 and 33

FEMALE.—Total length, 0.80 mm. Carapace, 0.30 mm. long, 0.28 mm. wide.

Carapace black on the sides including the clypeus, medially with a broad black band which encloses the eye group and passes back to the posterior declivity which is pale yellow. Sternum pale yellow, with four large dark maculations at the corners, with a clothing of erect inconspicuous hairs. Labium, mouth parts and coxae pale yellow. Tarsi of the legs light brown, the other joints dusky, with broad darker terminal rings that in some cases nearly completely darken the joints. Abdomen black above, with two recurved transverse rows of four large white spots; sides and upper part of the abdomen with numerous smaller white spots; venter with a broad pale band which passes caudad far behind the spinnerets and which encloses several transverse brown bands.

Carapace nearly as broad as long, about equal in height from the eyes to the posterior declivity, moderately convex and moderately high, the sutures indistinct. Eyes of the first row weakly procurved, the dark medians separated by their diameter, contiguous with the subequal white laterals. Clypeus with a transverse groove be-

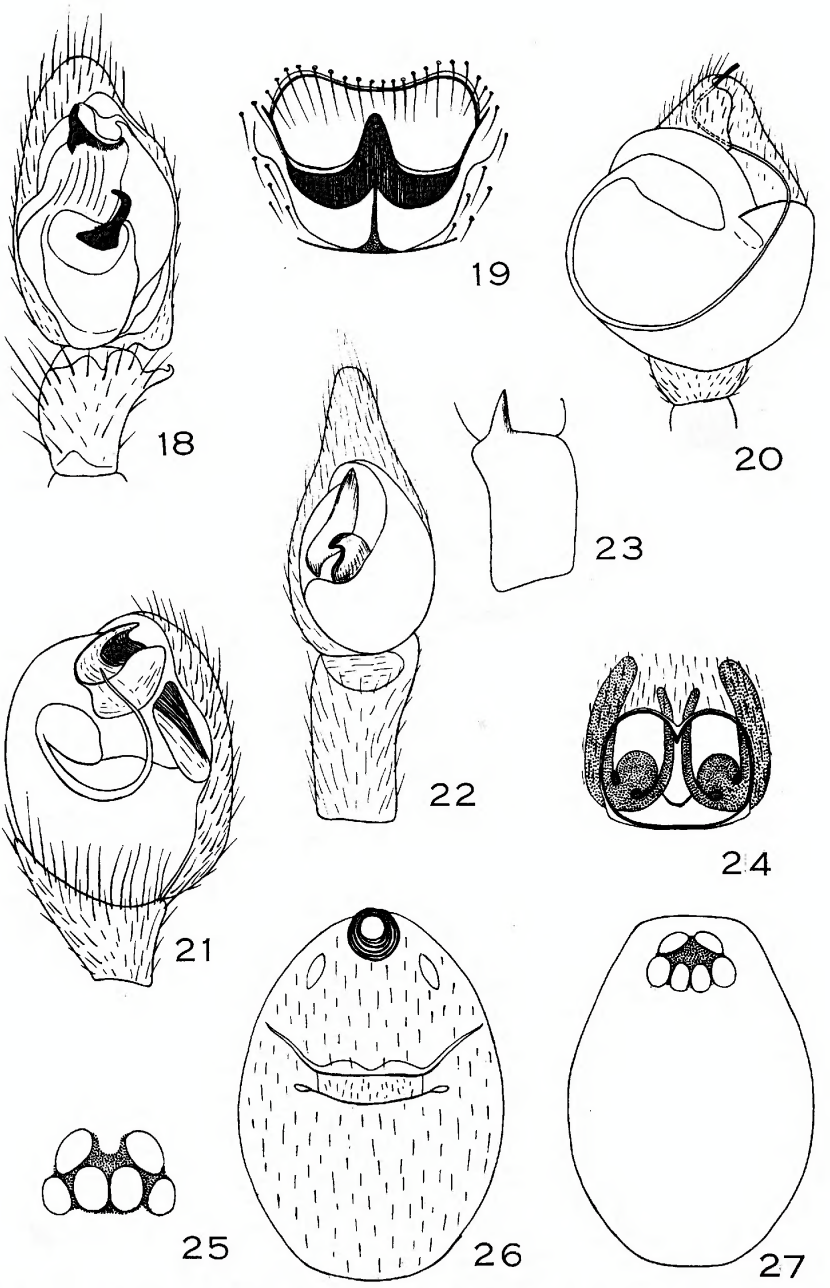

Fig. 18. *Zorocrates alternatus*, new species, left palpus, ventral view.
Fig. 19. Idem, epigynum.
Fig. 20. *Dipoena jocosa*, new species, right palpus, ventral view.
Fig. 21. *Theridion submissum*, new species, right palpus, ventral view.
Fig. 22. *Micaria vinnula*, new species, left palpus, ventral view.
Fig. 23. Idem, tibia of left palpus, subdorsal view.
Fig. 24. Idem, epigynum.
Fig. 25. *Opopaea meditata*, new species, eyes of female.
Fig. 26. Idem, venter of abdomen of female.
Fig. 27. *Stenoonops* (?) *juvenilis*, new species, carapace of male, dorsal view.

low the eyes, equal in height to the diameter of an anterior median eye. Second row of eyes straight, the medians separated by a radius, as far from the subequal laterals. Median ocular quadrangle slightly broader than long, slightly wider in front, the anterior medians a little smaller. Tibia and patella I, 0.30 mm. long; IV, 0.25 mm. long. Tarsi pectinate. Abdomen strongly elevated, globose, slightly overlapping the carapace in front, the spinnerets located near the genital groove. Epigynum not fully developed.

MALE.—Total length, 0.62 mm. Carapace, 0.27 mm. long, 0.30 mm. wide.

Color of the carapace and abdomen as in the female. Carapace slightly broader than long, convex, more strongly elevated in the female, the pars cephalica decidedly higher. Eyes of the first row procurved, the medians separated by a little more than their diameter, contiguous with the subequal laterals. Second row of eyes weakly procurved, essentially straight, the medians separated by their radius, as far from the smaller laterals. Median ocular quadrangle broader than long (13/10), much wider in front in the same ratio, the posterior median eyes larger. Clypeus gently sloping, twice as high as the diameter of an anterior median eye. Claws pectinate. Abdomen not so strongly elevated as in the female. Palpus as figured.

TYPE LOCALITY.—Male holotype, immature female allotype and paratype from Cameron County, Texas, May 1 and 2, 1936 (L. I. Davis).

Theridion submissum, new species

Figure 21

MALE.—Total length, 2.15 mm. Carapace, 0.97 mm. long, 0.85 mm. wide.

Carapace pale-yellowish brown, the sides of the pars thoracica infuscated, the dorsum with an elongate triangular dark maculation which begins at the posterior declivity and passes forward to include the ocular area. Eyes narrowly ringed in black. Sternum, mouth parts and coxae pale yellow, the margins of the sternum lightly infuscated, the whole underside very sparsely set with black hairs. Anterior legs missing, the posterior ones pale yellow, very narrowly annulate at the distal ends of the tibiae and metatarsi. Integument of the abdomen pale yellow, the dorsum with a median longitudinal white stripe the whole length, the sides strongly marked with black reticulations, the venter lightly infuscated in front.

Carapace longer than broad, moderately high, rather evenly convex, the clypeus rounded, the cephalic sutures and cervical groove weakly indicated. Pars cephalica at the second eye row half as broad as the greatest width of the carapace. Clypeus convex as seen from the side, twice as high as the diameter of an anterior median eye. Eyes of the first row straight from in front, the medians separated by scarcely their diameter, subcontiguous with the subequal laterals, separated by about half the radius. Eyes of the second row very weakly procurved, essentially straight, the medians separated by two-thirds their short diameter, as far from the slightly smaller lateral eyes. Median ocular quadrangle broader than long (24/22), slightly wider in front in the same ratio, the eyes subequal. Sternum as broad as long, subtriangular, bluntly rounded behind, the posterior coxae separated by their width. Labium twice as broad as long. Abdomen three-fourths as broad as long, oval in outline moderately elevated. Second femur, 1.10 mm. long. Fourth patella and tibia, 1.00 mm. long. Palpus rather robust, the details as figured. This species belongs

in the group of which *Theridion murarium* Emerton, *T. placens* Keyserling and *T. frondeum* Hentz are typical and can be separated by the details of the palpus.

TYPE LOCALITY.—Male holotype from Chisos Mountains, Brewster County, Texas, July, 1935 (L. I. Davis).

Theridion credulum, new species

Figure 17

MALE.—Total length, 1.20 mm. Carapace, 0.65 mm. long, 0.50 mm. wide.

Carapace dull yellowish brown, evenly infuscated with brown, sparsely streaked in brown, with a few black hairs in the ocular region, the eyes ringed in black. Sternum, labium and endites brown, set with a few scattered weak black hairs. Legs yellowish brown, with inconspicuous darker annulae. Abdomen for the most part gray, with two irregular lines of white spots on the dorsum, the venter with a broad black stripe that surrounds the spinnerets.

Carapace longer than broad, rather low, weakly convex, highest near the front but nearly equally high behind to the posterior declivity. Clypeus one and one-half times as high as the diameter of an anterior median eye. Eyes of the first row practically straight, the medians separated by a little more than the radius, less than half as far from the smaller laterals. Second row of eyes straight, the medians separated by three-fourths their diameter, two-thirds their diameter from the subequal laterals. Median ocular quadrangle as broad as long, very slightly wider in front, the anterior medians a little larger. Sternum as broad as long, cordate, the posterior coxae separated by their width. Labium twice as broad as long, a third as high as the endites. First leg: femur, 1.00 mm. patella, 0.30 mm., tibia, 0.77 mm., metatarsus, 0.80 mm. and tarsus, 0.40 mm. long. Legs without true spines, set with rows of black hairs. Palpus as figured.

TYPE LOCALITY.—Male holotype from Cameron County, Texas, January to March, 1936 (L. I. Davis).

Linyphiidae

Microneta llanoensis, new species

Figures 14, 15 and 16

MALE.—Total length, 2.00 mm. Carapace, 0.90 mm. long, 0.75 mm. wide.

Carapace dull yellow to light yellowish brown in color, armed sparsely with a few weak spines, the eyes ringed in black and enclosing a dusky area. Mouth parts, sternum and legs concolorous with the carapace, the former with a few short inconspicuous hairs, the legs with rows of hairs but without spines.

Carapace longer than broad, convex, broad in front, the width at the second eye row five-sevenths the greatest width of the carapace (55/75). Clypeus rounded, slightly sloping, equal in height to three and one-half times the diameter of an anterior median eye. Pars cephalica highest just behind the eye group, convex, the cephalic sutures and the cervical groove nearly obsolete. Eyes of the first row straight as seen from in front, the medians subcontiguous, separated from the larger laterals by two-thirds the diameter. Eyes of the second row essentially straight, the medians separated by three-fourths their diameter, as far from the subequal lateral eyes. Median ocular quadrangle broader than long (17/12), wider behind in the same ratio,

the eyes subequal. Chelicera longer than broad, the upper margin with five unequal teeth, the lower margin with four small subequal teeth which are placed near the base of the claw. Chelicera furnished on the outer side with a file-like series of ridges as usual in the family. Sternum broader than long (24/22), broadly truncated in front, weakly rounded on the side, bluntly pointed between the posterior coxae which are separated by their width. Labium broader than long. First leg: femur, 1.10 mm., patella, 0.25 mm., tibia, 1.30 mm., metatarsus, 1.10 mm. and tarsus, 0.80 mm. long. Details of the palpus as figured.

TYPE LOCALITY.—Male holotype from Llano, Llano County, Texas, December, 1934 (L. I. Davis).

Argiopidae

Eustala brevispina, new species

Figures 9 and 10

MALE.—Total length, 5.50 mm. Carapace, 2.53 mm. long, 2.27 mm. wide.

Integument of the carapace pale yellow, medially with a broad irregularly margined brown band which includes most of the dorsum and is variegated with round black spots, the sides pale, the eyes ringed with black. Clothing of the carapace short procumbent black hairs on the darker pattern, the pale areas with white hairs, those in front longer. Sternum dull yellow, irregularly margined with black. Labium and endites brown, the distal margins white. Coxae from beneath margined with black. Legs dull yellow, strongly marked in black, the femora mainly black above, especially so the last one, the other joints with dark terminal annulae. All the joints otherwise variegated with numerous black spots. Dorsum of the abdomen brownish gray, with a narrow black median longitudinal band, an indistinct triangular folium and two small white spots at the base. Venter of the abdomen with a broad dark median band.

Carapace somewhat longer than broad, moderately elevated, flat above, the cervical groove a deep longitudinal depression. Pars cephalica higher than the thoracic portion, the ocular region protruding beyond the clypeal margin, the cephalic striae indistinct. Sides of the carapace convex, dropping abruptly from the flattened dorsum. Eyes of the first row essentially straight as seen from in front, strongly recurved as viewed from above, the medians separated by their diameter, about as far from the much smaller laterals which eyes are elevated on conspicuous tubercles. Eyes of the second row strongly recurved, the medians about three times as far from the subequal laterals. Median ocular quadrangle broader than long (53/45), much wider in front (53/40), the anterior medians much larger (in ratio of 21:14). Clypeus as high as the diameter of an anterior median eye. Sternum longer than broad (55/45), the posterior coxae subcontiguous. Labium three-fifths as long as broad. First coxa with a distal ventral spur on the retrolateral side. First leg: femur, 4.35 mm., patella, 1.40 mm., tibia, 3.50 mm., metatarsus, 3.00 mm. and tarsus, 1.00 mm. long. First tibia with six pairs of weak ventral spines, the last pair distal. Palpus as figured, characterized particularly by the very short embolus which is like that of no other described species. Abdomen subtriangular, somewhat pointed and truncated behind, with a weakly developed caudal tubercle.

FEMALE.—Total length, 8.00 mm. Carapace, 2.70 mm. long, 2.50 mm. wide.

Carapace uniform reddish brown in color, the eyes narrowly ringed with black. Sternum and mouth parts pale yellow, lightly infuscated. Legs less strongly maculate than in the male. Abdomen with a well-marked dorsal folium, the venter with a median longitudinal dark band which is divided by a white stripe.

Structure as usual in females of the genus, the carapace nearly as broad as long, very broad in front, the clypeus vertical, the pars cephalica not strongly protruding beyond it. Eyes of the first row essentially straight from in front, recurved as seen from above, the medians separated by nearly one and one-half times the diameter, twice as far from the much smaller laterals which are elevated on very weak tubercles. Second row of eyes recurved. The medians separated by about the diameter, four diameters from the smaller laterals. Median ocular quadrangle broader than long (48/43), wider in front (48/42), the eyes subequal. Clypeus scarcely as high as the diameter of an anterior median eye. First leg: femur, 3.00 mm., patella, 1.30 mm., tibia, 2.70 mm., metatarsus, 2.45 mm., and tarsus, 0.80 mm. long. Abdomen subtriangular, with a conspicuous caudal tubercle and a smaller tubercle below it, essentially as in *Eustala rosae* Chamberlin and Ivie. Epigynum as figured.

TYPE LOCALITY.—Male holotype from Cameron County, Texas, December, 1934 (L. I. Davis). Female allotype and paratypes from Brownsville, Texas, May 25, June 1 and June 8, 1934 (J. N. Knull).

Eustala cameronensis, new species

Figure 13

MALE.—Total length, 3.50 mm. Carapace, 1.90 mm. long, 1.60 mm. wide.

Color and pattern of carapace agreeing in detail with that of the male of *Eustala brevispina*, new species. Sternum mainly black, paler in the middle, the labium and endites black, distally pale. Legs pale yellow, the femora darkened in the distal half, the tibiae and metatarsi with distal dark rings and inconspicuous basal annulae. Abdomen gray to brown above, with a well marked broad folium, the venter with a dark band which encloses a white spot.

Structure of the carapace as in the male of *brevispina*. Eyes of the first row essentially straight as seen from in front, the medians separated by a little more than their diameter, a little farther from the much smaller laterals which are elevated on distinct tubercles. Eyes of the second row recurved, the medians separated by their diameter, three times as far from the much smaller lateral eyes. Median ocular quadrangle broader than long (4/3), wider in front in the same ratio, the anterior medians larger. Clypeus equal in height to the diameter of an anterior median eye. Sternum longer than broad (75/60), the posterior coxae subcontiguous. Labium broader than long (35/18). First coxae with a distal ventral spur placed on the retrolateral side. First tibia with five pairs of ventral spines, the last pair distal. First leg: femur, 3.30 mm., patella, 0.95 mm., tibia, 2.24 mm., metatarsus, 2.00 mm., and tarsus, 0.70 mm. long. Palpus as in other species of the genus, e.g., *Eustala anastera*, *rosae*, etc., the embolus a long spine, the conductor setose but not greatly enlarged as in *anastera*, the appended apophysis (clavis of F. Cambridge) as usual in the genus. Median apophysis (uncus) of the bulb proportionately shorter than in other species. Abdomen subtriangular in shape, narrowed behind, without dorsal or terminal tubercles.

TYPE LOCALITY.—Male holotype from Cameron County, Texas, January to March, 1936 (L. I. Davis).

This is a much smaller species than *Eustala rosae* Chamberlin and Ivie or *Eustala brevispina*, new species, The abdomen is not tuberculate as in these species and it differs in the details of the palpus.

Eustala rosae Chamberlin and Ivie

Figures 11 and 12

Eustala rosae CHAMBERLIN AND IVIE, 1935, Bull. Univ. Utah (Biological Series, II (No. 8)), XXVI, p. 22, Pl. XV, Fig. 124.

RECORD.—Cameron County, Texas, January to March, 1936, male (L. I. Davis).

Zoropsidae

Zorocrates alternatus, new species

Figures 18 and 19

MALE.—Total length, 5.00 mm. Carapace, 2.70 mm. long, 2.00 mm. wide. Abdomen, 2.20 mm. long, 1.50 mm. wide.

Integument of the carapace dull yellowish brown, very sparsely clothed with fine black hairs. Margins of the carapace dusky, the dorsum with two irregular longitudinal dusky bands, the intervals between them a pale stripe which is weakly constricted at the cervical groove. Eyes ringed with black. Sternum, mouth parts and coxae dull yellow, evenly but sparsely clothed with erect short black hairs. Chelicerae light reddish brown, clothed with longer black hairs. Legs pale yellow basally, slightly browner toward the distal ends, sparsely clothed with black hairs and set with strong spines. Abdomen gray to black above, with a median pattern of pale spots, the sides of the venter flecked with black, the venter pale yellow. Clothing of the abdomen inconspicuous black hairs.

Carapace longer than broad, convex, slightly highest at the longitudinal cervical groove, the cephalic sutures poorly indicated. Pars cephalica at the eyes half as wide as the greatest width of the carapace. Clypeus half as high as the diameter of an anterior median eye. First row of eyes procurved, slightly recurved as seen from above, the median eyes separated by about one-third their diameter, slightly nearer the larger laterals. Second row of eyes slightly broader than the first, essentially straight, the medians separated by their radius, scarcely a diameter from the subequal laterals. Median ocular quadrangle longer than broad (35/30), narrowed in front (30/25), the anterior medians smaller. Lateral eyes subequal. Sternum longer than broad (13/11), suboval, the anterior coxae separated by nearly their length, the posterior coxae subcontiguous. Labium slightly longer than broad (40/38), subquadrangular, four-sevenths as high as the endites. Chelicera with three subequal teeth on the lower margin, with three on the upper of which the median one is larger.

Leg formula, 4123. All tarsi scopulate beneath. First leg: femur, 2.00 mm., patella, 1.10 mm., tibia, 2.00 mm., metatarsus, 2.00 mm., and tarsus, 1.35 mm. long. Tibia and patella of the fourth leg, 3.20 mm. First tibia with four pairs of ventral spines, the last pair distal. Palpus as figured.

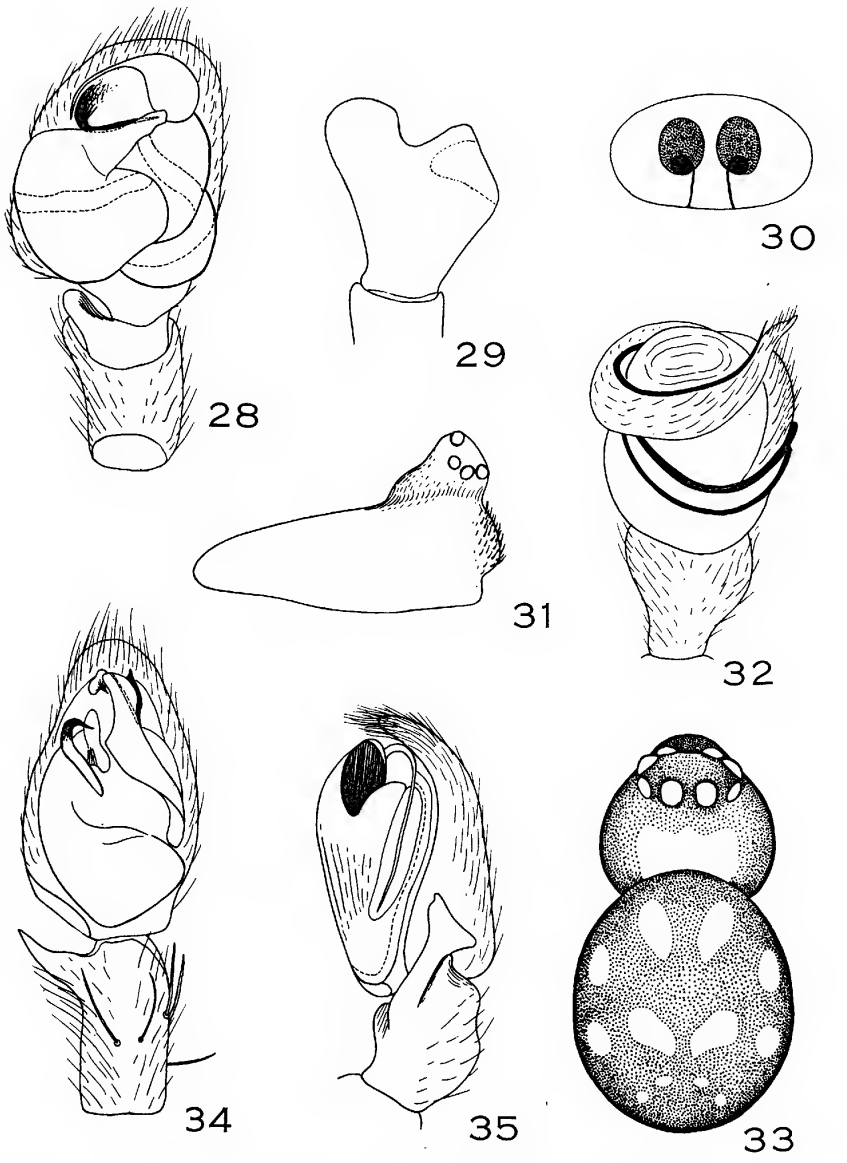

Fig. 28. *Floricomus mulaiki*, new species, right palpus, ventral view.
Fig. 29. Idem, tibia of right palpus, retrolateral view.
Fig. 30. Idem, epigynum.
Fig. 31. Idem, carapace of male, lateral view.
Fig. 32. *Calodipoena incredula*, new species, right palpus, subventral view.
Fig. 33. Idem, carapace and abdomen of male, dorsal view.
Fig. 34. *Drassyllochemmis captiosus*, new species, right palpus, ventral view.
Fig. 35. *Clubiona adjacens*, new species, right palpus, retrolateral view.

FEMALE.—Total length, 7.50 mm. Carapace, 3.10 mm. long, 2.30 mm. wide.

Color and structure essentially as in the male. First leg: femur, 2.00 mm., patella, 1.05 mm., tibia, 1.80 mm., metatarsus, 1.40 mm. and tarsus, 0.90 mm. long. Tibia and patella of the fourth leg, 3.30 mm. long. Spines beneath the first tibiae as in the male but less robust. Epigynum as figured.

TYPE LOCALITY.—Male holotype and paratype and female allotype and paratype from east of Harlingen, Texas, January to March, 1936 (L. I. Davis).

This small species is closely related to *Zorocrates aemulus* Gertsch which is also from Texas and resembles it in general appearance. The differences in the palpi and epigyna, however, are considerable and the species may be easily separated by reference to them.

Zorocrates isolatus, new species

FEMALE.—Total length, 9.20 mm. Carapace, 4.00 mm. long, 2.80 mm. wide.

Integument of the carapace bright yellow-brown, sparsely clothed with fine black hairs, the ocular region and the clypeus with a series of long black hairs that overlap the chelicerae. Margins of the carapace slightly infuscated, the dorsum with very faintly indicated, dark long bands which are accentuated by the black hairs. Chelicerae reddish brown. Sternum, mouth parts and coxae bright yellowish brown, evenly clothed with erect black hairs. Legs concolorous with the carapace, a little darkened distally, clothed with fine black hairs. Abdomen uniform gray above, paler beneath, very much rubbed and damaged.

Carapace longer than broad, moderately convex, the cervical groove longitudinal. Pars cephalica at the eyes three-fifths as broad as the greatest width of the carapace, the cervical sutures very slightly evident. Front truncated, the clypeus half as high as the diameter of an anterior median eye. First row of eyes weakly procurved, the medians separated by two-thirds their radius, a little nearer the larger laterals. Posterior row of eyes very weakly procurved, essentially straight, the medians separated by about two-thirds their diameter, fully a diameter from the subequal laterals. Lateral eyes subequal. Median ocular quadrangle longer than broad (53/48), slightly narrowed in front (48/43), the anterior medians smaller. Labium slightly longer than broad (75/72), subquadrangular, seven-twelfths as high as the parallel endites. Sternum longer than broad (95/80), suboval, the posterior coxae subcontiguous. Chelicera with three subequal teeth on the lower margin, the upper with three of which the middle one is larger.

Leg formula, 4123. Tarsi of all legs and the metatarsi of the first two pairs scopulate beneath. First leg: femur, 3.50 mm., patella, 1.80 mm., tibia, 3.30 mm., metatarsus, 2.50 mm., and tarsus, 1.40 mm. long. Tibia and patella of the fourth leg, 5.10 mm. long. First leg without spines above, except for two dorsals on the femur. First tibia with 2–2–2–1–2 ventral spines, the metatarsus with 2–2–2 ventral spines; otherwise both joints unarmed.

TYPE LOCALITY.—Immature female holotype from Chisos Mountains, Brewster County, Texas, July, 1935 (L. I. Davis).

The only specimen of this species is immature but presents numerous differences from *Zorocrates aemulus* and *alternatus*, chiefly in the posses-

sion of more than four pairs of ventral spines beneath the first tibiae and in the much greater size. *Zorocrates isolatus*, new species, is more closely related to *Zorocrates mistus* Cambridge and agrees with it in the spinal formula of the legs. It is possibly identical with the immature female from Santa Rosa Valley, Baboquivari Mountains, Arizona, recorded by Gertsch (1935, American Museum Novitates, No. 792, page 23) as *Z. mistus* Cambridge but on the basis of the specimens on hand that cannot be definitely determined.

Clubionidae

DRASSYLLOCHEMMIS, NEW GENUS

A genus of the subfamily Liocraninae.

Lower margin of the furrow of the chelicera with two small, well-separated teeth, the upper with three, also well separated. Carapace longer than broad, convex, the width of the head about half the width of the carapace. Eye rows close together, straight, the eyes of the posterior row subequal and subequidistant, the medians of the anterior row smaller and nearer the laterals. Median ocular quadrangle broader than long, narrowed in front. Fourth tibia with two dorsal spines. First tibiae unarmed above, with six pairs of ventral spines. Anterior spinnerets much longer than the posteriors.

GENOTYPE.—*Drassyllochemmis captiosus*, new species.

This species has the anterior spinnerets widely separated and thus resembles the Gnaphosidae, particularly the genera of the subfamily Anagraphidiinae. However, the presence of six pairs of ventral spines beneath the interior tibiae would seem to preclude the possibility of its being a gnaphosid. In other respects it resembles the genus *Anachemmis* Chamberlin from which it may be separated by having only two teeth on the lower margin of the chelicerae.

Drassyllochemmis captiosus, new species

Figure 34

MALE.—Total length, 4.30 mm. Carapace, 2.00 mm. long, 1.63 mm. wide.

Carapace light yellowish brown, clothed sparsely with fine procumbent gray hairs interspersed with which are suberect, more robust, black hairs. Clypeus margined with four elongate spines below the eye row and with three weaker ones on each side. Eyes narrowly ringed in black and including a dusky area. Sternum, mouth parts and coxae pale yellowish brown, clothed with erect black hairs. Legs concolorous with the dorsum, darker distally, clothed with rows of erect black hairs and stout black spines. Abdomen gray to white above, infuscated somewhat on the sides, the venter pale. Clothing of the abdomen a thin covering of long procumbent gray hairs, the base of the dorsum, however, with a patch of stout long curved hairs.

Carapace longer than broad, rather low, moderately and evenly convex, the cephalic sutures obsolete, the cervical groove longitudinal. Width of the carapace at the second eye row less than half the greatest width (75/163). Eyes of the first row

straight, the medians separated by two-thirds their diameter, nearly touching the much larger lateral eyes. Second row of eyes straight, the medians separated by their diameter, as far from the slightly larger lateral eyes. Median ocular quadrangle broader than long (23/15), narrowed in front in the same ratio, the anterior medians smaller. Lateral eyes of each side separated by one-fourth the diameter of the slightly larger anteriors. Clypeus equal in height to one-half the diameter of an anterior median eye. Cervical groove beginning back nearly seven-tenths of the length of the carapace. Upper margin of the furrow of the chelicera with three well-separated teeth, the median larger; the lower margin with two subequal, separated small teeth. Sternum longer than broad (110/86), truncated in front, gently rounded on the sides, bluntly rounded between the posterior coxae which are separated by a little less than half their width. Coxae subequal. Labium broader than long (27/24), subquadrangular, half as high as the subparallel endites, the latter with a terminal brush of fine black hairs. Anterior spinnerets very long (0.60 mm.), separated by their width, the apical joint very short, set with nine long spinning tubules. Posterior spinnerets three-fourths as long as the anteriors but much less robust, well separated.

	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	1.30	0.95	1.30	1.00	0.65	5.20 mm.
II	1.25	0.88	1.15	0.93	0.65	4.86 mm.
III	1.13	0.75	0.96	0.95	0.60	4.39 mm.
IV	1.40	0.95	1.40	1.48	0.80	6.03 mm.

First tibia with six pairs of strong ventral spines, the last pair apical, and with a basal and distal prolateral, otherwise unarmed. First metatarsus with a basal and a submedian ventral pair of spines, otherwise unarmed. Second tibia with four ventral pairs and two prolaterals and retrolaterals, dorsally unarmed. Last legs with strong spines beneath (three pairs) and above. First tarsi with a thin covering of scopular hairs. Palpus as figured.

Type Locality.—Male holotype from Cameron County, Texas, May 1 and 2, 1936 (L. I. Davis).

Micaria vinnula, new species

Figures 22, 23 and 24

Male.—Total length, 2.45 mm. Carapace, 1.28 mm. long, 0.75 mm. wide.

Carapace dark reddish brown, somewhat paler on the thoracic portion, the midline and the sides of the pars cephalica with a few indistinct dark streaks. Carapace clothed sparsely with procumbent white scales, the clypeus with five long hairs projecting over the chelicerae, four marginal and the middle one somewhat above. Chelicerae dark reddish brown. Sternum and mouth parts light yellowish brown, sparsely set with erect black hairs. First femur brown in the basal two-thirds, distally pale yellow, the other joints of the first leg pale yellow. Second leg as the first but the brown on the femur forming side bands. Last legs light brown on the basal joints, the distal ones paler. Dorsum of the abdomen dusky, covered with inconspicuous scales, with a pale ring at the slight constriction of the abdomen in which

the scales are orange. Venter of the abdomen white, with a few scattered orange scales.

Carapace much longer than broad, gently rounded in front and on the sides, strongly rounded caudally, the width of the pars cephalica at the second eye row equaling five-sevenths of the greatest width (55/75), which is between the third coxae. Carapace strongly convex, highest behind the eyes, the median groove an inconspicuous longitudinal slit, the cephalic sutures obsolete. Clypeus equal in height to the diameter of an anterior lateral eye. First row of eyes weakly procurved, the medians separated by their radius, half as far from the subequal laterals. Second row of eyes essentially straight, the eyes subequal and subequidistant, separated by nearly one and one-half times the diameter. Median ocular quadrangle longer than broad (17/15), slightly narrower in front, the posterior eyes slightly smaller. Lateral eyes of each side subequal, separated by one and one-half times their diameter. Lower margin of the furrow of the chelicera apparently unarmed. Leg formula, 4123, the femora with a dorsal spine near the base, the first legs otherwise unarmed, the last two legs with weak ventral spines on the tibiae and metatarsi. First leg: femur 0.70 mm., patella, 0.32 mm., tibia, 0.60 mm., metatarsus, 0.48 mm., and tarsus, 0.44 mm. long. Fourth leg: femur, 0.80 mm., patella, 0.33 mm., tibia, 0.66 mm., metatarsus, 0.73 mm., and tarsus, 0.40 mm. long. Palpus as figured.

FEMALE.—Total length, 2.10 mm. Carapace, 1.08 mm. long, 0.66 mm. wide. Coloration and structure essentially as in the male. Epigynum as figured.

TYPE LOCALITY.—Male holotype and female allotype from San Antonio, Texas, December 28, 1935 (L. I. Davis).

This species closely approximates *Micaria swansoni* Gertsch and Mulaik in color but is distinct in the eye relations and the details of the palpus. The tibial apophysis of the male palpus is more strongly developed than in *swansoni*. Both species have the carapace very broad as in *Micaria nanella* Gertsch but have a much shorter tibial apophysis.

Clubiona adjacens, new species

Figure 35

MALE.—Total length, 2.30 mm. Carapace, 1.05 mm. long, 0.75 mm. wide.

Whole spider pale yellow except for the narrow black rings around the eyes and the brown tibia and tarsus of the palpus. Carapace clothed sparsely, the abdomen more thickly with inconspicuous white hairs. Spines of the legs black.

Carapace longer than broad, moderately high, the head sutures and cervical groove obsolete. Structure as in other species of the *abboti* group. Eyes of the first row marginal, the clypeus scarcely evident, the medians separated by a radius, half as far from the subequal laterals. Eyes of the second row straight, the medians separated by nearly two diameters, half as far from the subequal lateral eyes. Median ocular quadrangle broader than long (25/16), narrower in front in the same ratio. All eyes subequal. Eye group nearly as wide as the pars cephalica at the second eye row. Sternum longer than broad (60/43), truncated in front, narrowly rounded on the sides, bluntly pointed behind, the posterior coxae separated by one-third their width. Lower cheliceral margin with three small teeth. First leg: femur, 0.72 mm., patella, 0.38 mm., tibia, 0.64 mm., metatarsus, 0.48 mm., and tar-

sus, 0.30 mm. long. Tibiae of the first two legs with a broad basal and a median pair of spines, no distals; metatarsi of these legs with a single basal pair of spines. Tibia of the first two legs without lateral or dorsal spines. Palpus as figured, the details of the tibial apophysis distinctive for the species which is closely related to *Clubiona abboti* Koch.

TYPE LOCALITY.—Male holotype from Cameron County, Texas, May 1–2, 1936 (L. I. Davis).

Oonopidae

Opopaea meditata, new species

Figures 25 and 26

FEMALE.—Total length, 1.65 mm. Carapace, 0.70 mm. long, 0.55 mm. wide. Abdomen 0.95 mm. long, 0.64 mm. wide.

Carapace bright orange-brown, somewhat darkened on the sides, clothed sparsely with inconspicuous erect black hairs. Eyes narrowly ringed with black. Clypeal margin with seven black hairs which overlap the chelicerae. Mouth parts, sternum and legs nearly concolorous with the carapace, the appendages a little paler distally, the clothing of the legs and underside a few black hairs. Abdominal plates concolorous with the carapace, the soft parts of the abdomen gray to white, all sparsely set with inconspicuous short black hairs.

Carapace longer than broad, rather strongly convex, the pars thoracica suborbicular, the head portion weakly rounded in front, moderately constricted at its juncture with the cephalic portion. Width of the head at the posterior lateral eyes less than half the greatest width of the carapace (27/64). Carapace as viewed from the side convex and highest immediately behind the eyes, about equal in height to the position of the obsolete cervical groove, and then abruptly declining to the caudal margin. Clypeus sloping, equal in width to the short diameter of the oval anterior lateral eyes. Eyes six, the first row of two narrower than the second (15/20), the eyes separated by about their short diameter, forming a strongly procurved line with the posterior medians with which they are subcontiguous. Eyes of the second row rather strongly recurved, a line through the centers of the posterior laterals touching the caudal margins of the medians. Posterior median eyes contiguous, slightly separated from the slightly smaller posterior lateral eyes. Sternum longer than broad (40/36), truncated behind where the coxae are separated by more than their length (16/26). Labium half as high as broad, subquadrangular, nearly half as high as the convergent endites. Legs without spines. First leg: femur, 0.50 mm., patella 0.25 mm., tibia, 0.36 mm., metatarsus, 0.32 mm., and tarsus, 0.17 mm. long. Tibia and patella of the fourth leg, 0.70 mm. long. Dorsal sclerite a long oval completely covering the dorsum of the abdomen. Ventral sclerite (Figure 26) less extensive, not fully covering the venter. Spinnerets ringed with a narrow sclerite. Epigynal region as illustrated.

TYPE LOCALITY.—Female holotype from San Antonio, Texas, December 28, 1935 (L. I. Davis).

This species is distinct from *Opopaea devia* Gertsch in the eye relations, in the much higher, more convex carapace and in the details of the epigynal area.

Stenoonops (?) juvenilis, new species

Figure 27

MALE.—Total length, 1.10 mm. Carapace, 0.55 mm. long, 0.44 mm. wide. Carapace bright yellow, the clothing consisting of a few scattered erect black hairs, the clypeal margin with six which are more robust. Eyes narrowly ringed with black and enclosing a black field. Sternum, mouth parts, coxae and legs uniform dull yellow, sparsely but evenly clothed with inconspicuous black hairs. Abdomen dull white to gray, clothed with black hairs.

Carapace longer than broad, evenly convex, suboval in outline, the pars cephalica at the second eye row half as wide as the greatest width. Clypeus truncated, about equal in height to the diameter of an eye of the first row. Carapace as seen from the side gently convex, nearly equal in height from the eyes to the posterior declivity, which is rather abrupt. Eyes of the first row narrower than the second (11/16), very slightly separated. Second row of eyes procurved, about equal in size and subcontiguous. Quadrangle of the posterior median and the anterior eyes broader than long (11/10), wider in front (11/8). Sternum longer than broad (36/33), truncated behind, the posterior coxae separated by their length. Labium as long as broad, two-thirds as high as the endites. Legs without spines, the first patella and tibia, 0.40 mm. long. Abdomen two-thirds as broad as long. Palpus not fully developed.

TYPE LOCALITY.—Immature male holotype from Cameron County, Texas, January to March, 1936 (L. I. Davis).

This interesting species presents differences from other species of *Stenoonops* which may not admit its being included in the genus. The pars cephalica is much broader and the second eye row is distinctly procurved. The eye arrangement is much as in *Scaphiella* but the species lacks the sclerotized shields on the abdomen.